


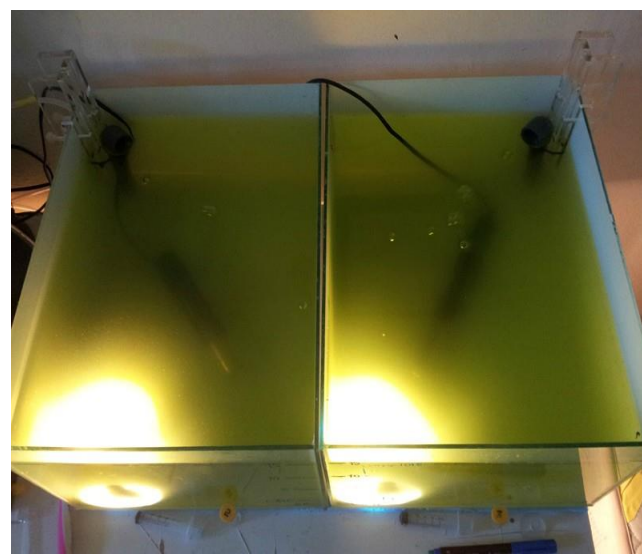
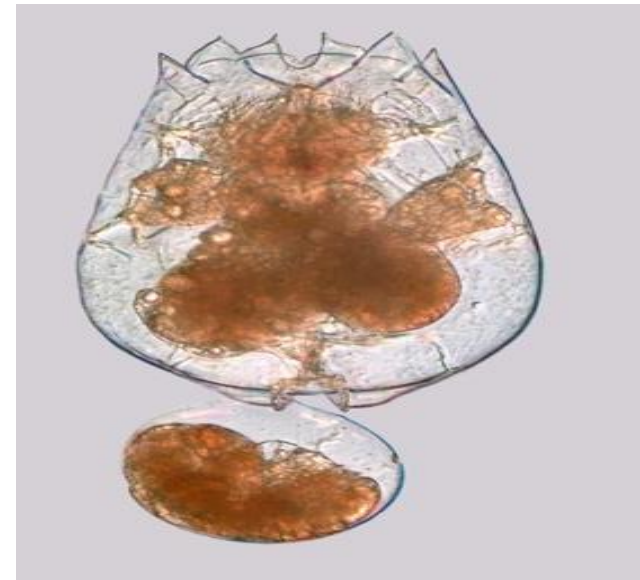
# ROTIFERS CULTURE



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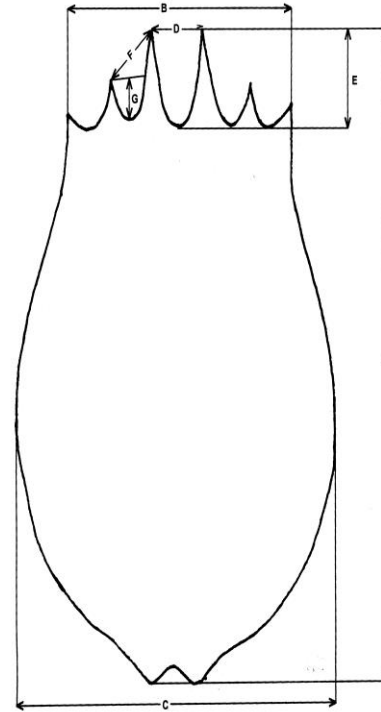
# ROTIFERS IDENTIFICATION



# SYSTEMATICS

**Phylum** :Nemathelminthes  
**Class** :Rotifera  
**Order** :Monogononta  
**Suborder** : Ploima  
**Family** : Brachionidae  
**Genus** :*Brachionus* Pallas  
**Species** : *B. plicatilis*

Morphometric characters of rotifer *Brachionus plicatilis* (O.F. Muller)



- A - Loric Length  
B - Width of Anterior Loricum  
C - Width of Loricum  
D - Distance between middle spines  
E - Height of middle Spine  
F - Distance between middle Spine and adjacent Spine  
G - Height of adjacent Spine

Fu et al., (1991)



Six spines, Posterior margin broader Saw toothed, two posterior spines well developed. Sinus 'U' shaped. length: 110-221µm.



# ROTIFER CULTURE

## Stock Culture of rotifers

Rotifer samples will be collected from stagnant water bodies using mesh ranging from 50-100 $\mu$ m pore size.

Rotifers will be identified under a stereozoom microscope.

Adult rotifer along with eggs will be isolated and stocked in known volume of filtered water fed with *Chlorella* sp. @ 1 million cells/ml.



# ROTIFER CULTURE

## Stock Culture of rotifers

*Chlorella* density will be increased up to 3-4 million cells/ml.



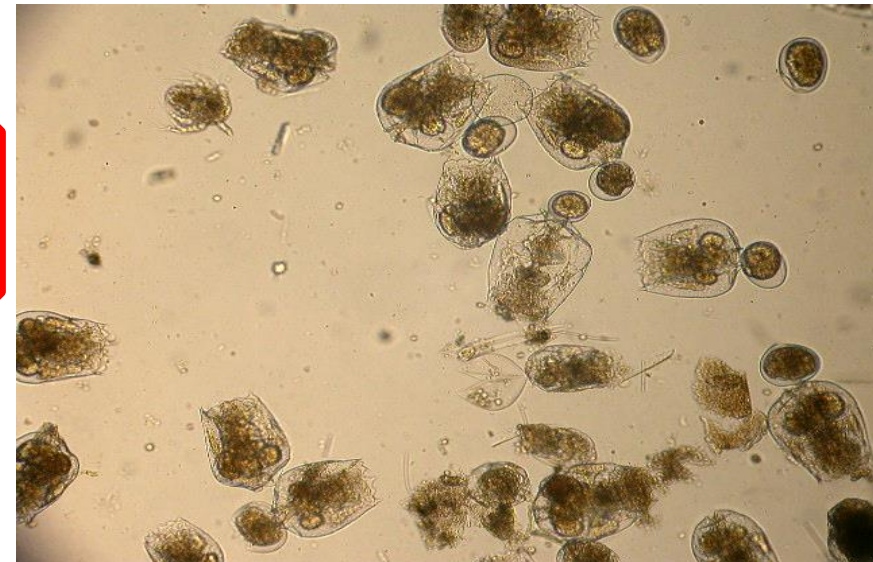
When the density exceeds, about half of the quantity will be removed and dechlorinated tap water or distilled water will be added



Culture will be continued till the density reaches about 50 ind./ml.



Rotifers will be fed daily with fresh *Chlorella*





# MASS CULTURE

Mass culture will be developed for *Chlorella* or *Nannochloropsis*



Rotifers will be inoculated @ 50 nos/ml. and vigorous aeration will be provided



Temperature- 30°C  
pH- 9  
DO- 9-10 ml/lit  
Ammonia- 5 ppm



After 7 days, density increase to 500 and above nos/ml.



Harvesting will be done after about a week when the density is higher than 100 rotifers/ml.



Rotifers will be harvested by draining the water through a 80µm mesh.

# MASS CULTURE

## BATCH CULTURE

Algae under low density will be inoculated with low density of *Brachionus* and harvested once an the algal cells are consumed



## SEMI-CONTINUOUS CULTURE

A certain volume of water is replaced by fresh quantity of water with or without algae



## FEEDBACK CULTURE

Accumulated particulate matter and feces in the rotifer tanks will be decomposed in a separate tank using bacteria, while the decomposed matter is used as fertilizer for algal cells. After harvest of rotifers the entire batch is discarded and a fresh batch is initiated

